ACHIEVE BEST R.O.I WITH HITACHI DATA SYSTEMS
PROVIDED BY OUR SERVICE TEAM SWITZERLAND
The use of IT is changing fast. Data is being produced in ever larger amounts, and businesses are faced with the daunting challenge of analysing all that information to make the best business decisions. Our mission at Hitachi Data Systems is to help you meet that challenge. We can help you store, manage, access, secure, index and search your information, wherever it is located. We will allow you to “Innovate with Information” by deploying today’s best technologies for Virtualization, Cloud and Big Data solutions. However, innovation alone is no guarantee for success - businesses must be ready to address the full, long term implications of IT Transformation projects. Our Measurable Gains strategy will help you do just that, and this booklet will show you how. All of our experts reflect this commitment to your business gains – through their deep experiences and diligent application of our methodology. For 82% of the FORTUNE Global 100 companies, Hitachi Data Systems is the right partner to Destination ROI.

We are ready to take your challenges!
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HITACHI DATA SYSTEMS:
AN ORGANISATION WITHIN AN INTERNATIONAL GROUP

About Hitachi Ltd.
- Hitachi Data Systems, 100% part of an international network: Hitachi Ltd
- Founded in 1910
- Revenue 2012: 96B $ 
- 900 Subsidiaries
- 326'000 employees
- R&D Budget 5B $ 

About Hitachi Data Systems Switzerland
- Founded in 1976
- 95 Employees
- 3 Subsidiaries:
  - HQ Switzerland: Wallisellen (ZH) 
  - Branch Offices: Zollikofen (BE), Plan-les-Ouates (GE) 

Hitachi is a key partner of businesses in every industry sector worldwide. We tie together data from all sources, providing insights that help communities to become safer and businesses to make more informed decisions.

At Hitachi Data Systems, we live that overarching vision of our parent company. We embrace emerging technologies, pushing the front line of progress forward and acting as a catalyst for change.

With our vision, resources and track record, we will help you to exceed your goals.

AN OPEN AND COLLABORATIVE ECOSYSTEM OF PARTNERS

No IT infrastructure is homogeneous. Hitachi Data Systems is committed to open environments without technology walls. Our solutions are designed to protect legacy investments and to avoid a “rip-and-replace” transformation. We partner with all the major players in the market place – providers for infrastructure, applications and services, to allow for a seamless and efficient integration.

PARTNERS SWITZERLAND

Our goal is the further development of the successful, long-term, strategic and sustainable relationships between our customers and our partners. Thanks to the distribution of knowledge we can assist you in the best possible way.
OVERCOMING YOUR CHALLENGES

Our solutions address the key challenges faced by IT departments all around the world. We will provide you with the tools and guidelines to ensure you meet these challenges and achieve business success.

DATA GROWTH
Discover, analyze and leverage data to uncover new information for competitive advantage.

COST
Increase efficiency and utilization of resources and meet required service levels.

COMPLEXITY
Free data from applications and infrastructure, implement governance and provide information more effectively.

RISK
Protect from business disruptions and safeguard your investments.

GLOBAL & SWISS SOLUTIONS
INTEGRATED CLOUD STRATEGY FOR ALL NEEDS

Advantages include:
- Our infrastructure cloud approach unifies your server, storage and network silos to improve utilization, simplify management and lower costs.
- As unstructured data overtakes structured data, our content cloud approach creates an intelligent warehouse to store and manage billions of data objects, allowing you to cut costs and automate the information lifecycle.
- Our information cloud strategy will help you extract more value from your data, connecting data sets across application silos and revealing new insights to business users.
- A single virtualization platform will ensure your organization gets seamless access to all stored resources.
Our vision is to allow you to access information through any application from any device. Whether your data is structured or unstructured, historical or real-time, we offer a delivery infrastructure which will transform it into information and insight.

Our goal is to increase the measurable value of IT to your business now and for the future. We will reduce risk, accelerate your ROI, lower costs and successfully manage your storage infrastructure, by delivering a high performance solution tailored precisely to your business objectives.
GLOBAL & SWISS EXPERIENCE

Transformation is our daily preoccupation. Hitachi Data Systems manages hundreds of transformation projects every year – ranging from global transcontinental migrations, to smaller, highly specialized projects. This is just a selection of customers who have utilized our expertise to facilitate their transformations.

“Hitachi Data Systems is a very valuable and reliable partner of ours and has provided us with considerable support for many years, helping us to achieve our goals and meet the demands of our clients.”

— Siemens

“Hitachi helped us grow our capabilities and services back to business without adding complexity or more staff.”

— Swiss International Air Lines

“The specialists at Hitachi Data Systems are very competent and are highly committed to their work. Future collaboration with Hitachi Data Systems is definitely on the horizon.”

— Accenture

“Hitachi Data Systems proactive ITIL-based service methodology ensured that there was never an incident.”

— Swisscom

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— Aviva

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— BT

“How fast we received the result of the evaluation...

— RBS WorldPay

“we were more than satisfied with the result... We were pleased how fast we received the result of the evaluation.”

— centris

“The business perspective

Technology is fundamental to every business operation, but how you use that technology is critical to business success. Hitachi will allow you to produce measurable gains by studying, defining and building the right SLAs, in order to minimize risks and operational expenses.

HOW WE DO IT

Our Global Service organization is structured according to the ITIL (Information Technology Infrastructure Library). Our highly integrated teams of experts will accompany you on your projects from start to finish, guaranteeing measurable gains at every stage.

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The Measurable Gains Assessment is a consulting practice that lies at the heart of the Hitachi Data Systems Transformation approach. We will take a comprehensive view of your current and long-term cost drivers, before proposing solutions that will maximise your ROI.

Hitachi has conducted over 1’000 Storage Economics engagements with IT organizations worldwide. Hitachi’s Storage Economics methodology benchmarks 34 elements of storage cost to identify both CAPEX and OPEX savings. Hitachi is the undisputed leader in storage virtualization with more than 12’000 platforms shipped and 30PB+ under management. A Hitachi virtualized, tiered storage environment achieves up to 85% storage utilization.

Four outstanding facts about Hitachi Data Systems:

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Additional Resources for Economizing your Storage Environment:

- Economize your Storage Resource Center on HDS.com
- David Merrill’s The Storage Economist Blog
- Subscribe to Innovation newsletter
- Storage Economics live and online events
Not all data is equal. While some data is crucial to the existence of your organization, other data is less critical for day-to-day operations. The more critical the data, the higher the investment into the availability of that data needs to be. But how do you assess what hierarchy has the best fit for your data? Our specialists have the experience, the tools and the methodology to propose a classification specifically designed for your business. Our solutions will allow your company to store information according to its true value.

Autoexplore enables IT managers to collect detailed information about each device, volume, and file in a heterogeneous storage network, without requiring installation of agents. When combined with Rocket Arkivio professional services, the solution enables IT managers to implement a detailed storage audit that gathers critical information and produces in-depth reports about the data storage environment. By identifying and migrating less frequently accessed data off primary storage, IT managers can reduce the time required for backup and disaster recovery.

In most data centres, capacity resources become over-allocated. This is especially true for storage, where any application request for capacity blocks storage assets from further use. This results in huge amounts of seemingly allocated storage that is effectively idle. Our Storage Reclamation Service will identify such blind allocation and reallocate the storage space to where it is needed. This reallocation is fully transparent to the original application which will continue to see the same capacity. We typically identify between 30 and 60% savings, allowing many companies to better utilise existing storage assets and improve ROI.
When it comes to building business cases for IT projects, there is often a gap between the initial “ROI studies” and the actual outcome. A study by The Standish Group found that 68% of all larger IT projects fail to reach their target ROI — of these 31% even get cancelled during realization. The result of this is that many companies misalign financial management, underutilize and fail to measure the full business implications of projects over their lifecycle. The proven Transformation Project Management approach from Hitachi Data Systems ensures that all factors are taken into consideration, continuously measured and acted upon and that the primary objectives stay in focus.

What are the reasons for this discrepancy?

- Lack of governance
- Lack of input from stakeholders
- Poor interlock between IT and Business
- Internal politics
- Unclear expectations
- Changes in project scope
- Missing skills and resources
- No project management / organization
- Identification of required resources and skills
- Leadership and ownership
- Input from all stakeholders
- Management and mitigation of business risk
- Clearly defined milestones and expectations
- Status reports and progress tracking

The Hitachi Data Systems Transformation Project Management process benefits from the experience and best practice from thousands of transformation projects, ensuring your business benefits from our unique, holistic transformation approach.

Your benefits

- Predetermined success criteria
- Identification of required resources and skills
- Expert governance for the migration process
- Leadership and ownership
- Input from all stakeholders
- Management and mitigation of business risk
- Status reports and progress tracking

The Hitachi Data Systems Transformation Project Management process benefits from the experience and best practice from thousands of transformation projects, ensuring your business benefits from our unique, holistic transformation approach.
ROLES AND RESPONSIBILITIES
At the very start of every Transformation Project, Roles and Responsibilities are documented for every phase. All tasks are clearly defined in a RACI Table (Responsible, Accountable, Consultative, Informed), ensuring that all stakeholders know in advance when every task has to be delivered and who is responsible.

REPORTING
The Hitachi Data Systems Methodology includes a large number of reporting deliverables, giving project stakeholders a clear view of key activities and milestones. All documents are compiled and updated by the project leader, including a report for use within Hitachi Data Systems. This allows our top-level Management to monitor the progress of your transformation.

THE METHODS OF MIGRATION
One of the most critical steps in any transformation is migration, where vital business information gets transferred to a new home. Our primary goal at this stage is to identify and control risk.

Several migration options are available and the majority of these are valid for mainframe environments as well as Open Systems.

Server Migration
This method by using a Logical Volume Manager (LVM) has the advantage to let the application on-line. The synchronisation and the replication to the new storage can then run during the day.

Key points
- Pros: Allows migration on the fly
- Cons: Extra overhead is generated and production servers may require server reboots
- Risks: Server utilization

Key Information
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MIGRATION USING VIRTUALIZATION
The new infrastructure is connected as a front end to the existing infrastructure, between the servers and the legacy storage. Existing data is migrated to the new storage units using intelligent virtualization.

Key points
- Pros: Allows migration on the fly
- Cons: The transfer load is supported by the new infrastructure while still supporting production requirements
- Risks: None

MIGRATION BY ARRAY REPLICATION
This process applies to existing Hitachi configurations, or once the legacy storage infrastructure has been virtualized.
This method is particularly well suited for relocation scenarios since it allows the existing site to be secured while data is being migrated to the new one.

Key points
- Pros: Allows migration on the fly with only one shutdown required
- Cons: The transfer load is supported by the old storage infrastructure. However, this is sized to ensure that production requirements are met during migration
- Risks: None - Rollback can be done at any time
NON-DISRUPTIVE MIGRATION (NDM)

This process allows data to be non-disruptively migrated from legacy Hitachi enterprise storage to the new Hitachi VSP storage array. It is particularly well suited to environments with applications that cannot be shut down.

**Pros:**
- Allows migration on the fly without any shutdown of the application. During and after migration the new storage system impersonates (or virtualizes) the legacy storage system.

**Cons:**
- Replication of data, such as TrueCopy or ShadowImage must be suspended during migration.

**Risks:**
- Rollback can only be performed up to a certain point in the migration.

**Key points**

**Schedule**
- Confirm schedule
- Semi-Technical Communications
- Technical Communications

**Execute**
- Execute against plan
- Record/Audit trail
- Exception handling

**Post-Migration**
- User Acceptance Test
- Bedding in period
- Formal acceptance and handover to Operations

**Decommissioning**
- Compliance
- Compare outcome to original business case

**Benefits Analysis**
- Compare outcome to original business case

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**Host Path**
- Application
- Multipath Software

**Virtualization Paths**
- USP-V
- S/N 12345

**TM MODE**
- Cache Through Migration Mode
- VSP
- S/N 12345

**LDEV**
- 1A/2A (Target)
- 3A/4A (External)
- 1C/2C (External)
- 1E/2E (Not Used)

**VSP**
- 10:00 (Target)
- 12:00 (Target)

A Non-Disruptive Migration is a fully documented and consistent process with defined tasks, transparent reports and agreed milestones.
Independent studies have shown that annual management and operational costs account for more than 60% of all storage related spending. Hitachi Data Systems addresses this by providing tailored operational storage services that allow you to reduce these overheads and focus your resources on growth.

**Benefits include**

- Efficient and cost effective alternatives to fully managed, 24/7 real-time storage provisioning
- Detailed reporting of current storage utilization, providing the baseline for accurate forecasting of future requirements
- Identification of potential performance issues
- Reduced burden on IT staff, freeing them to focus on delivering services to the business

**Capabilities include**

- Remote Performance and Capacity Reporting
- Remote Provisioning
- Remote Backup Monitoring

Outsourcing storage management provisioning activities to Hitachi Data Systems will allow you to address critical resource and skill gaps, streamline headcount and gain access to specialized experts when required.

**Our service offering**

- Implementation of best practice file system management
- Defined security policies
- Alignment of storage allocation to service levels
- Software Certification
- IT service continuity management
- Response to daily issues and changes as they relate to storage administration

**Remote Reporting**

The Remote Reporting Service leverages our Service Operations Centres to remotely and securely view the current utilization of your storage resources. As part of the remote reporting model, you are supplied with customized reports that will advise you on specific aspects of your environment, such as performance bottlenecks and/or future storage capacity requirements. The Remote Reporting Service is based on ITIL principles, and will help you to improve business agility.

**Benefits include**

- Expediting the identification/resolution of performance bottlenecks
- Permitting trend analysis for improved load balancing
- Enabling surveyed resource analysis to identify risk areas for quick resolution
- Supporting rapid application deployment through the planning and forecasting of adequate storage resources
- Allowing migration of data to meet new SLA based on data age

**Capabilities include**

- Globally unified operations centers
- Remote management and monitoring
- Provided by top level specialists

Hitachi maintains trained, certified and highly skilled storage and systems administrators at our Service Operations Centres as well as contracted onsite resources to deliver any proposed service requirements.
REMOTE BACKUP

Disk and tape backup technologies are being utilized ever more heavily as companies rely on data retention for daily operational and compliance needs. With the increasing complexity of backup software and the discipline needed to inspect log files, analyze failures, tune performance and track tapes, managing the daily backup process can be extremely difficult to do well. Organizations struggle to find and keep qualified administrators.

Backup Monitoring and Management Services help neutralize these challenges and more appropriately align internal resources to the evolving needs of business. Our services provide 24/7 monitoring, administration and management of your backup and recovery process and associated infrastructure. We will continuously monitor the backup process, device availability and the overall health and performance of your environment through the support of our remote Service Operation Center (SOC) team.

REMOTE MONITORING AND ALERTING

Our Remote Monitoring and Alerting Services provide cost-effective 24/7 monitoring of performance and capacity utilization in your environment. They will greatly improve storage performance and capacity management, maximize storage utilization and reduce your total cost of ownership.

REMOTE PROVISIONING

Our Remote Provisioning Service offers fully managed 24/7, real-time storage provisioning. The Service includes Hitachi Data Systems storage administration and management expertise on a contract basis for an agreed number of hours each month.

Add critical resource needs or skills gaps

Improve operational efficiencies

Mitigate risk

Expedite return on storage assets

Improve asset utilization

Increase customer satisfaction

Provisioning Services will ensure that your infrastructure documentation is up to date and that all regulatory requirements are met, while implementing Information Technology Infrastructure Library (ITIL) best practices to fully realize the business benefits from your storage infrastructure.

Hitachi Data Systems can recommend and deploy specific storage related actions in order to meet predefined Storage SLA.
**TRANSFORMATION CHOICES**

Our solution delivery is flexible and can be oriented to meet your operational as well as financial needs:

**Solution 1**

*Hitachi Data Systems provides hardware, software & basic service components*
- You integrate, migrate and operate
- We will deliver resources as needed

**Solution 2**

*Hitachi Data Systems provides most or all building blocks*
- Assembly, staging and software integration by Hitachi
- Installation/deployment performed by Hitachi staff
- Optional component: Hitachi provides point resources to assist with storage & server migration and virtualization

**Solution 3**

*Hitachi Data Systems provides a complete transformation*
- We carry out the implementation and the migration of data
- We ensure integration into customer’s management tools & processes and hand over to operations
- We operate

**VFAILOVER THE FRAMEWORK YOU NEED FOR YOUR VMWARE ENVIRONMENT**

«AUTOMATIC VM RECOVERY AND FAILBACK OF UNPREDICTABLE ISSUES.»

vFailover provides an automated failover and failback mechanism for virtualized data centers in VMware environments. Mirrored data stores and raw device mappings can be switched between sites either in planned or disaster scenarios. Due to its broad range of supported VMware high availability cluster configurations it can be easily integrated in existing environments. vFailover closes the gap between storage and application administration by combining deep VMware knowledge with years of storage array experience. vFailover is based on a PowerShell script bundle to enable customers to manage VMware behaviours in regards to Disaster Recovery, Availability and Maintenance. Easy manageability is given through Web based Graphical User Interface.

vFailover top reasons
- vFailover supports VMware vSphere™ metro and dispersed HA cluster solutions.
- vFailover allows you to recover your virtual machine settings.
- vFailover keeps you informed so that your VMware vSphere™ environment stays disaster recovery ready.
- vFailover smoothly integrates into every existing VMware vSphere™ solution.
- vFailover recognizes all changes within your VMware vSphere™ environment automatically.
- vFailover enables you to failover your basic service components and operational VMware vSphere™ environment during planned maintenance activities.
- vFailover creates the failover plan automatically. No manual failover plan needed.
- vFailover builds the storage replication setup automatically. No separate Hitachi HORCM instance management.
- vFailover allows your VMware departement to have full control of their disaster recovery solution.
- vFailover adds end-to-end monitoring from the virtual machine down to the storage replication.
- vFailover top reasons

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The following resources and the associated key data can be monitored and analysed using the IOportal (the list is not exhaustive).

<table>
<thead>
<tr>
<th>Resources</th>
<th>Key data</th>
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<td>Storage front end ports</td>
<td>I/O operations/sec and MB/sec of storage system and servers</td>
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<td>Storage micro processors</td>
<td>Average I/O service time of storage system and servers</td>
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<td>Average I/O block size of storage system and servers</td>
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<td>Logical Units (LUNs)</td>
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<td>Remote Copy</td>
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<tr>
<td>Universal Replicator</td>
<td></td>
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</tbody>
</table>

For more information, go to www.hdsioportal.com
PART 1
The service monitors on a daily base (t+1) the most important storage components, which are then checked and analyzed by Hitachi based on the data from the previous day.

In case thresholds are exceeded which can influence customers’ business Hitachi will inform customer predefined stakeholders daily during office hours before noon (Time zone: UTC +1). Additionally Hitachi will provide an action plan how to proceed with the next steps according to the analysis if required.

PART 2
Hitachi organizes a monthly meeting with the customer to review utilization and trends according to the outcome of part one (1). Additionally the Performance Portal utilization reports (www.hdsioportal.com) will be provided and discussed on a monthly base (normal operation). If Hitachi analysis shows any anomalies based on the Performance Portal outcome Hitachi will present and discuss the results and make recommendations.

PERFORMANCE ANALYSIS
The performance analysis includes the resource usage, the potential threshold violations as well as the identification of servers which consume considerable services from the subsystem. We are able to pinpoint potential difficult workloads and make suggestions to reduce their impact on the overall subsystem performance.

CONFIGURATION REVIEW
We validate the configuration of your subsystem. This validation includes micro-code levels, pooling concept, raid-levels, port setup and best practice guidelines. In addition disaster recovery options, like true copy or universal replicator and system modes are reviewed. With new micro codes enhanced functionality may become available or new system mode settings are suggested to allow optimal usage of the available resources.

CAPACITY REVIEW
The storage capacity of your subsystem is analyzed. This covers the array groups, the pools, and the tiering levels resulting in a complete overview of the capacity of the subsystem.

INTERVIEW/SWOT ANALYSIS
The storage check-up begins with a interview with your storage administrators. The result of these meetings, where we cover also the critical aspects of storage management, is then used as input for a SWOT analysis. The result of this process allows to proactive address resulting shortcomings of the current storage infrastructure, executing proper planning of required upgrades in due time and tracks changing requirements.

THE CHALLENGE
Demand for additional storage capacity, changing requests to the storage infrastructure, new or enhanced application demands, increased security requirements with very high availability without increasing the complexity and shrinking storage budgets are the current challenges to the storage infrastructure operation and administration. The newly developed HDS storage check-up service will help you conquering these demands.

The goal
- Guarantee the best configuration setup and optimal usage of the available resources
- Enable consistent performance and scalability in changing requirements and growth
- Enable detection of capacity or configuration challenges thus allowing for planning of capacity upgrades to reduce the risk of unexpected cost.

HDS STORAGE CHECK-UP
«STORAGE ENVIRONMENT STATUS QUO AND VISIONARY»

No company can afford a failure of critical IT components over a longer period. We check safely and reliably your Storage compounds. Each system failure is indicated and forwarded with the relevant information.

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STORAGE MANAGER HDS
«MINIMIZE YOUR PROVISIONING EFFORT AND SAVE ON OPEX»

Automates your tasks – no in-depth technical knowledge required. All settings and definitions are stored as profiles and will be offered as selection items in a menu. Only the profiles required for the task at hand will be presented. The profiles will be created by your specialists and managed through Storage Manager HDS.

With Storage Manager HDS you can deliver status information to existing change management systems and processes. If required, Storage Manager HDS can also provide chargeback information based on capacity and storage tier utilization, for individual projects.

- Reduced effort and reduced turnaround times for provisioning requests from weeks or days to minutes
- Releases your specialists from routine work to attend to more important and complex duties
- Riskless change management
- Errors most often occur during changes, with Storage Manager HDS safeguards are in place which eliminate the possibility of errors
- Enforcement of installation definitions and settings
- Simplified troubleshooting
- Multi user capabilities and role privileges
- Change can be done in parallel
- Automated process
- Complex tasks are streamlined in one process
- Reporting, auditing and documentation
- Configuration displays are immediately reflecting the applied changes
- Each staff member can, after a short introduction, operate Storage Manager HDS

HDS SPITSECOND
«AUTOMATE AND SIMPLIFY YOUR BACKUP REQUIREMENT»

- HDS SplitSecond will provide a snapshot (cloning, backup and restore) solution targeted to meet the requirements of mission-critical database environments.
- A snapshot is a specialized backup that is created almost instantaneously by using a split-mirror solution obtained from the Hitachi Enterprise Storage. Split-mirror snapshots present full copies of production data so that backup operations can be performed off-host and in parallel to other operations occurring on the production system.
- Hitachi SplitSecond supports various database architectures and Unix platforms:
  - IBM DB2
    - Standalone / Traditional HA
    - HADR
    - BWPP (Physical Partitioned Databases)
  - Oracle
    - Standalone / Traditional HA
- Support for other databases or applications can be easily added due to the modular design.

Hitachi SplitSecond is based on general Hitachi storage functionalities for In-System Replication management and standard OS/DB commands

- DB Command-Line Processor (CLP) – The DB command line processor (CLP) represents an interface through which you can conveniently access database functions. The CLP accepts commands or SQL statements from command line.
- OS standard tools for management of disks and filesystems/ raw devices – This is based on the use of specific filesystem features (Journal filesystem) and LVM (Logical Volume Manager).
- HPRCM/CCI – The Hitachi Command Control Interface software (CCI) enables administrators to perform storage system configuration and data management operations by issuing commands to the Hitachi storage systems.
- Enhanced KornShell (ksh) – In addition to the default system KornShell (/usr/bin/ksh), AIX provides an enhanced version available as KornShell /usr/bin/ksh93. For Linux, Solaris and HPUX the default system KornShell can be used.
Mainframe Infrastructure Monitoring Service from Hitachi Data Systems gives you insight into the front-end and back-end mainframe storage environment workload, performance, and utilization. This service enables you to take actions, such as adjust appropriate configuration changes, to keep storage subsystems operating optimally.

**YOUR CHALLENGES**

IT management faces various challenges when it comes to architecting and operating a mainframe attached storage environment, such as:

- **Insufficient performance and manpower to assess performance levels.**
  - Lack of confidence in the efficiency and effectiveness of the mainframe storage implementation.
  - Lack of a clear understanding of the workloads running on the mainframe stage.
- **Inability to meet service level agreements (SLAs)**
  - Inability to formulate and commit to storage service level objectives.
  - Inability to understand and factor in the changes in workloads and storage utilization over time into the storage planning.
  - Difficulties in predicting storage performance and utilization for new applications and workloads.
- **Minimal resources and skilled technology personnel**
  - Resource and technical constraints to perform periodic audits of the storage subsystems to validate adherence to certain performance levels.
  - Limited level of in-house IT skill set.
  - Budget constraints.
- **Data Growth**
  - All aspects of storage-related IT departments are faced with data growth challenges.

Infrastructure Audit Capability for Mainframe IBM® z/OS®
Front-end SMF monitoring service

Mainframe-Attached Storage
Reporter Capability
Back-end Performance service

AUDIT Capability

REPORTER Capability
We have combined all the features of our support and services capabilities, and combined these in our Select Care portfolio so that you can match the best proactive and reactive service levels to your specific business, operational and financial needs. The Select Care portfolio allows your IT infrastructure departments to overcome their ever-pressing resource constraints, and to focus on what really matters - business growth.

**Select Care overview**
- Comprehensive maintenance and support options
- Centralized support
- Local Service Delivery
- Preventative remote monitoring
- One stop shop for: Communication / Escalation / Coordination of issues... even after the issues are resolved
- 24/7 critical situation management
- Storage Solution Manager for one-touch service coordination

### SELECT CARE

<table>
<thead>
<tr>
<th>WARRANTY AND MAINTENANCE</th>
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<tbody>
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<td><strong>PERIOD OF MAINTENANCE</strong></td>
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**SELECT CARE CUSTOMER SERVICE & SUPPORT**

«ONE PORTFOLIO - MANY BENEFITS»

Our service agreements range from basic maintenance offerings available during normal business hours, to 24/7 premium coverage with a 2-hour response time for critical situations. We aim to resolve all incidents remotely, without delay and with minimal disruption to your operations. In fact, most service activities can be undertaken during normal business operations with no impact to your storage system.

**Our strength is in our comprehensive service delivery**
- 24/7 global coverage
- Expertise across all industries
- Transparency and accountability
- Focused applications expertise
- Microsoft®, SAP, Oracle
- IBM® and Mainframe
- Over 1200 services specialists worldwide
- Consistent delivery processes
- Multivendor-oriented approach
- Global ecosystem of service partners
- Close partnerships with a network of VARs and System Integrators
- Unique tools and processes

**MAINTENANCE SERVICE LEVELS**

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**SELECTION AND MAINTENANCE**

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Hi-Track Remote Monitoring System Passes Independent Security Audit with Flying Colors

Independent testing from ICSA Labs validated that the Hi-Track Remote Monitoring system was able to provide safe and reliable remote management of storage devices and equipment while remaining secure from attack.

“During the course of testing, the Hi-Track platform and its individual components were found to be secured from intrusion and that Hi-Track could be installed, administered and operated securely. The Hi-Track platform was not found to introduce any vulnerabilities into an existing network infrastructure.”

SUPPORT DASHBOARD

YOUR SYSTEM REPORTS IN A SINGLE CONSOLE

Our Global Support Dashboard lets you access real-time management reports regarding infrastructure utilization and performance all on one screen.

CRITICAL SITUATION MANAGEMENT

Managing your evolving environment is challenging enough, but what if an unexpected crisis occurs? Don’t worry—we’ve got you covered. Let us draw from our extensive experience with critical situations and environments to keep your business up at all times. Our Critical Situation Management leaves nothing to chance.

Benefits include

- 24/7 availability
- Single point of contact within Hitachi Data Systems
- Clear/concise action plans
- Engages all authorized resources for swift resolution
- Manages all internal and external communications
A successful transformation depends on your control and understanding of the technologies, tools and processes involved.

We have developed a comprehensive portfolio of training courses and certification paths in direct response to our customer’s and partner’s feedback.

Our Learning Paths accommodate a variety of media; Instructor-Led, Computer-Based and Web-Based training. In addition to scheduled events, we offer tailored sessions which can be held on-site or at Hitachi locations. We also offer storage training needs assessments.


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CREDENTIALS
- Hitachi Data Systems Certified Professional (Foundations)
- Hitachi Data Systems Certified Implementer
- Hitachi Data Systems Certified Solution Specialist - Business Continuity
- Hitachi Data Systems Certified Specialist - Virtualization
- Hitachi Data Systems Certified Architect
- Hitachi Data Systems Certified Architect - Expert
- Hitachi Data Systems Certified Storage Manager
- Hitachi Data Systems Certified Storage Manager - Expert
- Hitachi Data Systems Storage Technology
- Hitachi Data Systems Qualified Sales Professional

IT professionals seek to enhance their skills, differentiate themselves and grow their careers. With the demands placed on IT to support data growth and cloud investments, storage is an area in which IT professionals with the right credentials can be successful. The Hitachi Data Systems Certified Professional Program provides the opportunity to earn credentials that validate knowledge and skills in storage architecture, implementation and administration of Hitachi products and technology. The certification tracks include Foundations (which is for all technical audiences), Implementer, Solutions, Architect, Storage Manager, and Storage Technology. By integrating the best practices in IT certification and training, Hitachi Data Systems is leading the industry in meeting the needs of customers, partners and employees.

Detailed Course Descriptions are available, under www.learningcenter.hds.com
WE ARE READY
TO TAKE YOUR CHALLENGES!